ORF EXTERNAL DATABASE GUIDE

for Oracle Database 10g Express Edition

For ORF users

Revision 1.5
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INTRODUCTION

What is this guide about?

This guide provides step-by-step instructions for setting up Oracle Database 10g Express Edition to provide database services for ORF.

Please consider that this guide cannot cover the complex topic of administering a database server. We strongly recommend to consult the documentation of the database product on securing and administering the database product of your choice.

About Oracle Database 10g Express

Oracle Database 10g Express Edition is a free database server product from Oracle. It is basically the same product as Oracle Database 10g , but with some technical restrictions, for instance:

- Size is limited to 4 GB of user data
- Hardware utilization limits (single CPU, limited to 1 GB of RAM)
- Support for this version comes exclusively through on-line forums and not through Oracle support

Shall I be concerned about the Oracle Express limitations?

Probably not. If your Oracle Express is dedicated to ORF only, you are unlikely to run into performance issues, unless you run ORF in a very high load environment (800,000 - 1,000,000 emails per day). If you experience low response times from Oracle Express (timeout errors in the ORF logs), you may want to consider upgrading to the full Oracle Standard or Enterprise version.

GETTING STARTED

Getting Oracle 10g Express

You can download Oracle Database 10g Express free of charge from the following link:
http://www.oracle.com/technetwork/database/express-edition/downloads/index.html

We will also need the **Oracle Database 10g Express Client** for connecting to the database, the client can be obtained from the same page.

Installation

Run the installer (*OracleXE.exe*) and use the default options offered by the installer, except where the guide tells you otherwise:

1. Accept the license agreement.

2. Specify the path where Oracle will be installed to (*c:\oraclexe* by default, we will use this path in the guide). Specify the password for the SYSTEM account.

3. Install the client (*OracleXEClient.exe*).

CREATING THE TABLES

Once Oracle is installed, we can proceed with creating the tables for ORF, which will store the **Auto Sender Whitelist, Greylisting, Honeypot, Directory Harvest Attack (DHA)** and **SQL Log** databases. To ease things, we provide SQL scripts shipped with this guide, which will create all necessary tables.

To create the tables and to set their parameters, you have to run two SQL scripts. This can be done easily with the web interface of Oracle.

1. Login (**Start menu | Programs | Oracle Database 10g Express Edition | Go to Database Home Page**).

2. Upload the SQL script files of ORF in **Home > SQL > SQL Scripts.**

3. Five new icons will appear for the uploaded scripts. Run them one by one to create the tables.

You can check the results by clicking on the *View Results* icon. If you did everything right, a new tables should appear in the *Object Browser*:

Alternatively, you can run the commands included in the scripts in SQL*Plus.

ADDITIONAL SETTINGS

For security considerations, it is highly recommended to create a new database user for ORF with limited privileges and use that account to connect to the database.

We will use an account called "orfuser" for the connection in the rest of the guide for demonstrational purposes.

CONNECTING ORF TO THE DATABASES

ORF connects to the database using a ***connection string*** that specifies the connection parameters for ORF.

Connecting the auto sender whitelist database

1. Start the **ORF Administration Tool**.

2. Select *Whitelists / Auto Sender Whitelist* and click the **Database** button.

3. Select the **External SQL Server** radio button.

4. Click the **Configure** button.

5. Enter the connection string as described below:

   Provider=OraOLEDB.Oracle;
   Data Source=XE;
   User Id=orfuser;
   Password=password;
   DBA Privilege=SYSDBA;

For this connection, you will need the **OLE DB Provider for Oracle package developed by Oracle** (if you do not have it installed):
http://www.oracle.com/technetwork/database/windows/oledbfov10g-087436.html

Alternatively, you can use the **OLE DB Provider for Oracle developed by Microsoft**:
https://learn.microsoft.com/en-us/office/client-developer/access/desktop-database-reference/microsoft-ole-db-provider-for-oracle

In this case, the connection string looks like this:

   Provider=msdaora;
   Data Source=XE;
   User Id=orfuser;
   Password=password;
   DBA Privilege=SYSDBA;

For additional parameters (e.g. Trusted connection), please visit the following link:
https://www.connectionstrings.com/oracle/

6. Finally, test the connection string by clicking the *Test Connection* button. You should get a message: *"Connection test was successful"*.

Connecting the Greylisting database

1. Start the **ORF Administration Tool**.
2. Select *Blacklists / Greylisting* and click the **Database** button.
3. Continue as in the case of the Auto Sender Whitelist setup steps 3-6.

Connecting the DHA database

1. Start the **ORF Administration Tool**.
2. In *Blacklists / DHA Protection Test* click on the **Database** button.
3. Continue as in the case of the Auto Sender Whitelist setup steps 3-6.

Connecting the Honeypot database

1. Start the **ORF Administration Tool.**
2. In *Blacklists / Honeypot Test* click on the **Database** button.
3. Continue as in the case of the Auto Sender Whitelist setup steps 3-6.

Connecting the SQL Log database

1. Start the **ORF Administration Tool.**
2. In *System / Log* click on the SQL Log **Configure** button.
3. Select the Connection tab and continue as in the case of the Auto Sender Whitelist setup steps 4-6.

TECHNICAL SUPPORT

Please find our technical support contact options on our website at:

https://vamsoft.com/r?o-support